To Check Divisibility Of Every Number

Divility Algorithm

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Divility Algorithm can be stated as if a natural number 'N' is divisible by another natural number 'n', The sum of diviled unit digit of N and the remaining digit should be divisible by ‘n’.

Let N = 100x+10y+z

and d be divil of n.

If 10x+y+dz = 0 (mod n)

Then N = 0 (mod n)

- Divil is an integer which is unique for every natural number.

Example : Let N = 121 and our objective is to check whether it is divisible by 11 or not.

Divil of 11 is -1 thus d= -1

10x+y+dz =10(1)+2+1(-1) =

10+2-1 = 11

As 11 is divisible by 11 so N will also divisible by 11.

Divils of Some Number

7 = -2

11 = -1

13 = +4

17 = -5

19 = +2

23 = +7

29 = +3

31 = -3

37 = -11

41 = -4

43 = +13

Hope this will help you !